

**K. Chad Burgess**  
Director & Deputy General Counsel  
Dominion Energy Southeast Services, Inc.

220 Operation Way, MC C222, Cayce, SC 29033  
DominionEnergy.com



September 14, 2020

**VIA ELECTRONIC FILING**

The Honorable Jocelyn Boyd  
Chief Clerk/Administrator  
**Public Service Commission of South Carolina**  
101 Executive Center Drive, Suite 100  
Columbia, South Carolina 29210

RE: Inquiry Regarding Dominion Energy South Carolina, Incorporated's  
Tree Trimming Practices and the Pros and Cons of Moving Above-  
Ground Electric Lines and Placing Them Underground  
ND-Docket No. 2020-27-E

Dear Ms. Boyd:

Enclosed for filing in the above-referenced docket is a copy of the presentation that Dominion Energy South Carolina, Inc. will present at the virtual hearing on September 17, 2020.

If you have any questions or need additional information, please do not hesitate to contact us.

Very truly yours,

A handwritten signature in blue ink, appearing to read "K. Chad Burgess", written over a light blue horizontal line.

K. Chad Burgess

KCB/kms  
Enclosure

cc: Jeffrey M. Nelson, Esquire  
Carrie Grube-Lybarker, Esquire  
Roger P. Hall, Esquire  
(all via electronic and U.S. First-Class mail w/enclosure)

**Public Service Commission of South Carolina**  
**Generic Proceeding**  
**ND-2020-27-E**

**Vegetation Management &  
Undergrounding Electric Utility Lines**

**September 17, 2020**



**Dominion  
Energy®**

# Our Priorities

- Safety
- Reliability & Resiliency
- Customer Service

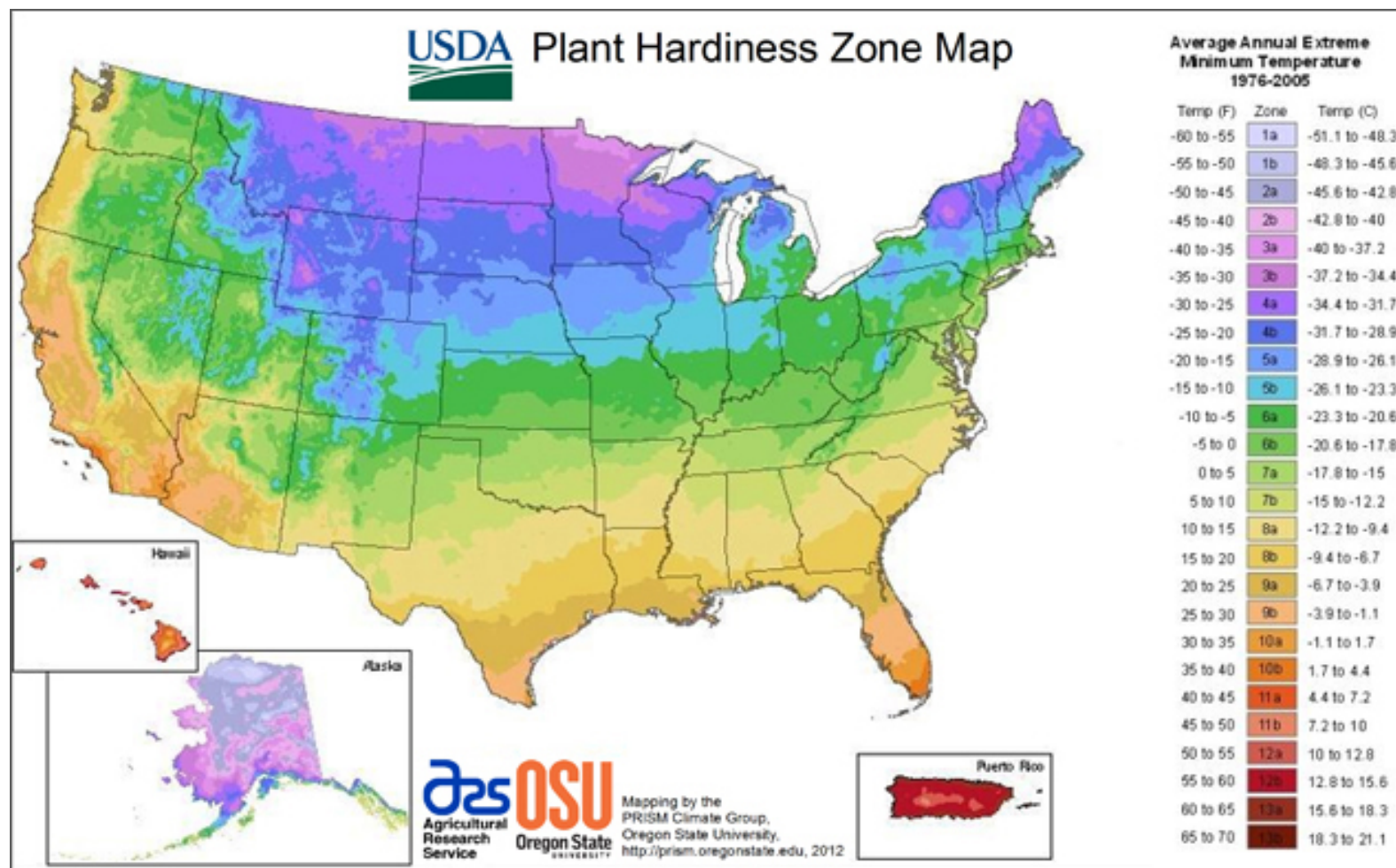
# **Vegetation Management**

- Critical to resiliency and reliability
- Allows for faster restoration during storms
- Increases safety for employees and the general public

# Vegetation Management

- Distribution: 12,862 miles of overhead line maintained on five-year cycle
- Transmission: 3,770 miles of overhead line maintained on four, five and six-year cycles

# Tree Trimming



# **Dominion Energy South Carolina: General Terms & Conditions of Electric Service**

The Customer, in requesting or accepting service, thereby grants the Company without charge necessary rights-of-way and trimming and clearing privileges for its facilities along, across, and under property controlled by the Customer to the extent that such rights-of-way and trimming and clearing privileges for its facilities along, across, and under property controlled by the Customer are required, necessary or convenient to enable Company to supply service to the Customer and the Customer also grants the Company the right to continue to extend the Company's facilities on, across, or under property controlled by the customer with necessary trimming and clearing rights to serve other Customers.

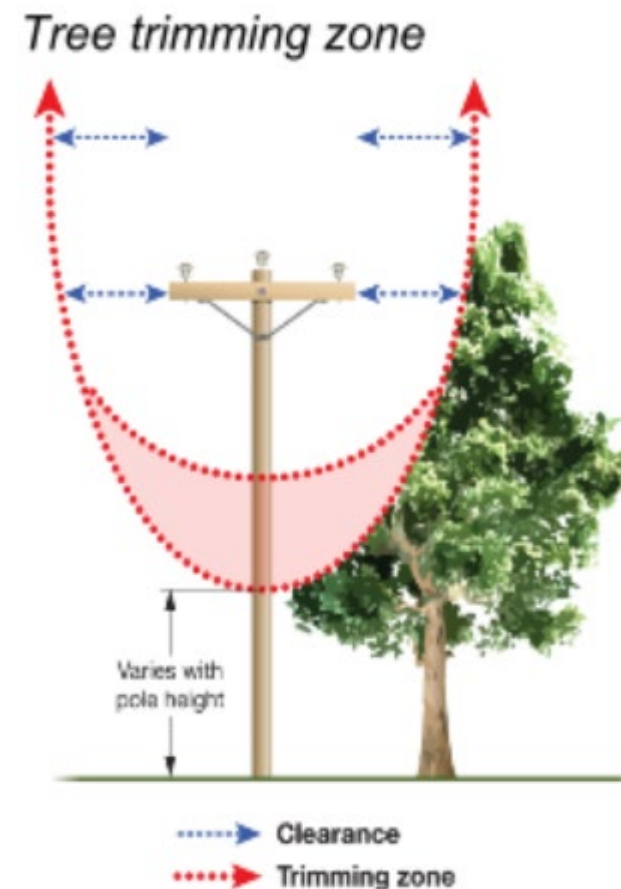
# **Certification and Credentials: Dominion Energy Foresters and Arborists**

- Bachelor of Science Degree: Forest Resource Management  
Clemson and N.C. State
- Board of Registration for Foresters; S.C. Department of Labor, Licensing, and Regulation
- International Society of Arboriculture: Certified Arborist
- South Carolina Commercial Certified Pesticide Applicator License



# Distribution Line Clearing Specifications

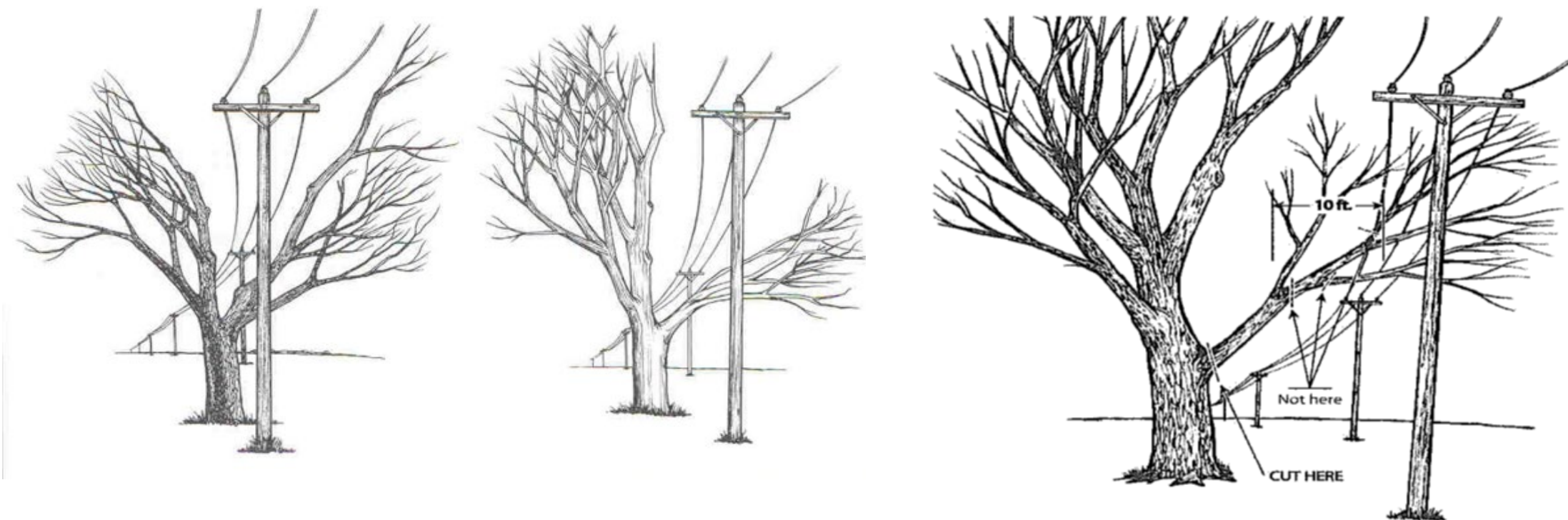
- Minimum of 10' clearance to side from outermost primary conductor
- Minimum of 20' clearance above highest primary conductor
- Minimum of 10' clearance below bottom most primary conductor or 4' below neutral
- Service lines cleared for abrasion
- Certain conditions may exist that preclude these clearances such as significant size parent limbs/leaders and large trunks located less than 10' from outermost primary conductor where removal would jeopardize health of the tree
- ANSI A-300



## Line Clearing Outreach

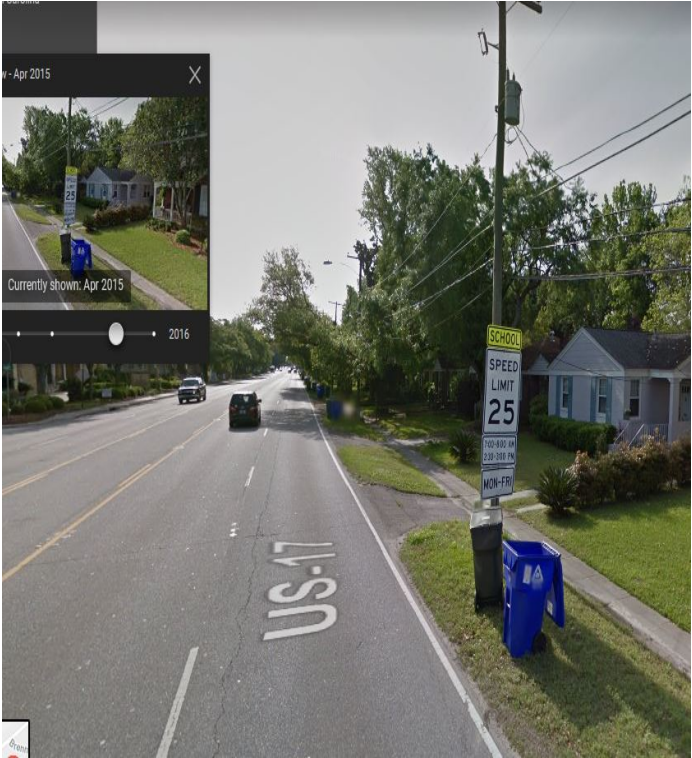
- Annual notification of line clearing in municipalities and counties
- Public workshops scheduled at the request of municipalities and counties
- Customers in affected areas are typically notified several weeks prior to the start of trimming via email or postcard

# Tree Trimming Specifications - Proper Techniques



ISA Best Management Practices, Utility Pruning of Trees

# Tree Trimming & Vegetation





# Tree Trimming & Vegetation





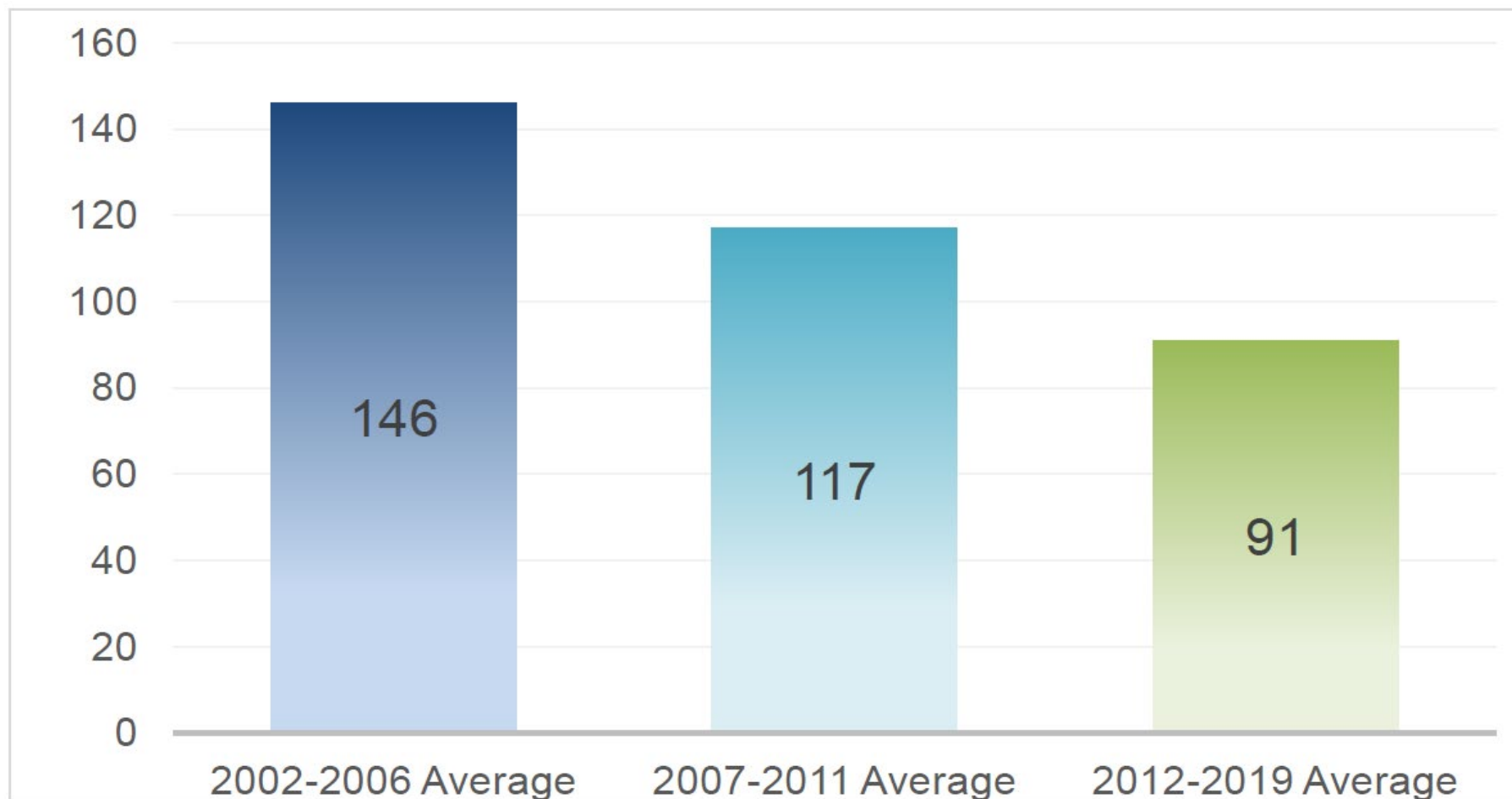
# Tree Trimming & Vegetation



# Operational Metrics and Undergrounding

- SAIDI
- Reliability & Resiliency
- Cost Benefit Analysis

## DESC System SAIDI





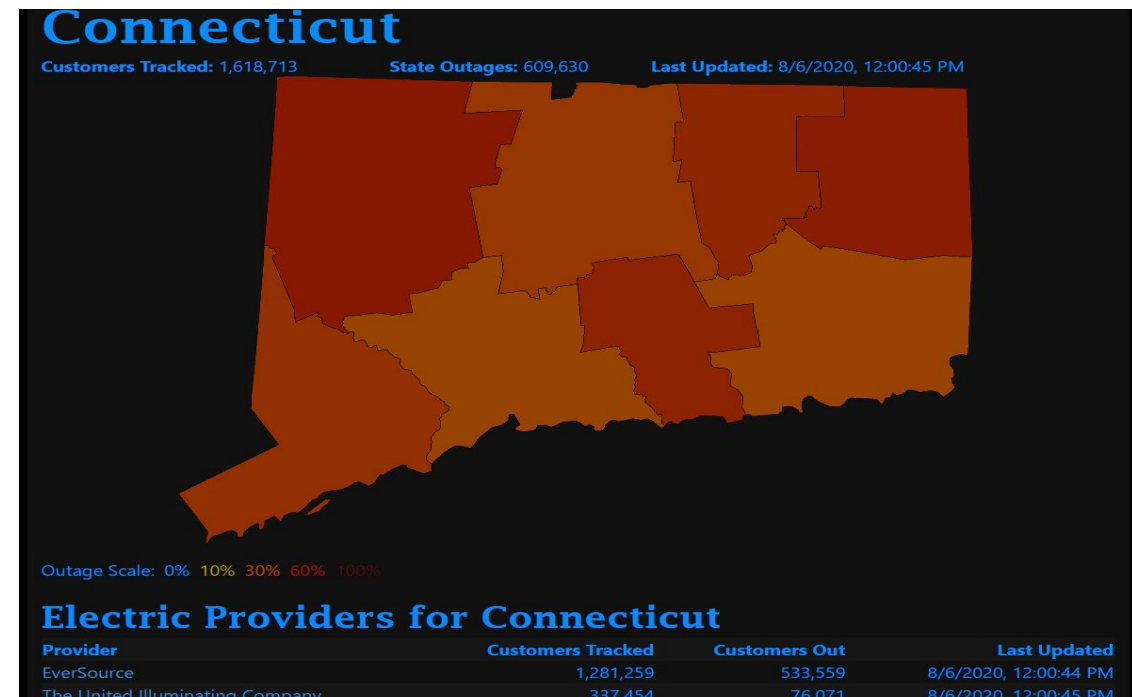
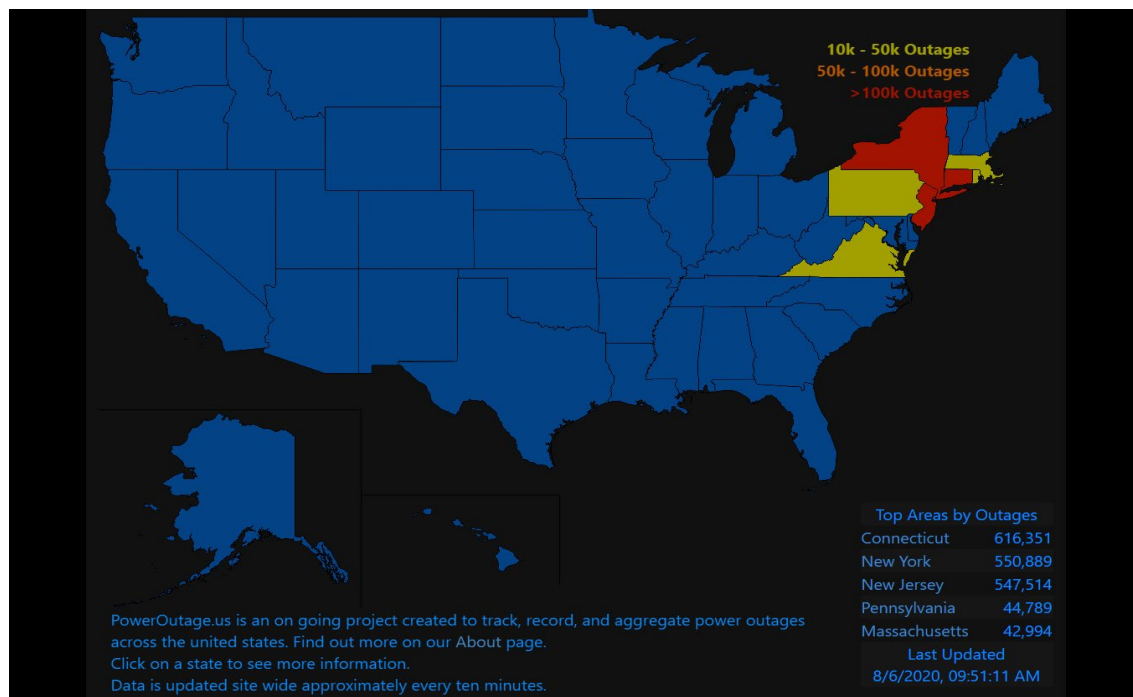
## DESC Outage Information: 2011- 2020

| Event                 | Dates               | Total Customers Out | Days to Restore Service |
|-----------------------|---------------------|---------------------|-------------------------|
| 2014 Winter Storm Pax | 2/12/14 – 2/19/14   | 151,700             | 7                       |
| Hurricane Matthew     | 10/7/16 – 10/16/16  | 313,300             | 9                       |
| Hurricane Irma        | 9/11/17 – 9/14/17   | 173,300             | 3                       |
| Hurricane Florence    | 9/14/18             | 7,500               | 1                       |
| Hurricane Michael     | 10/11/18 – 10/12/18 | 68,800              | 2                       |
| Hurricane Dorian      | 9/4/19 – 9/8/19     | 186,400             | 4                       |
| April 2020 Tornados   | 4/13/20             | 65,800              | 1                       |

## **Lessons Learned Outside of South Carolina**

- NE Blackout 2003
- North Carolina Report – Distribution UG 2003
- Florida Report – Distribution UG 2007
- Hurricane Sandy 2014
- Hurricane Irma 2017
- California Policy & Risk Management
- Hurricane Isaias 2020

# Hurricane Isaias: 2020 Northeast Impact



# Service Adequacy & Cost

## **SECTION 58-5-210. Supervision and regulation of rates and service.**

The Public Service Commission is hereby, to the extent granted, vested with power and jurisdiction to supervise and regulate the rates and service of every public utility in this State, together with the power, after hearing, to ascertain and fix such just and reasonable standards, classifications, regulations, practices and measurements of service to be furnished, imposed, observed and followed by every public utility in this State and the State hereby asserts its rights to regulate the rates and services of every "public utility" as herein defined.

## **SECTION 58-27-1520. Ordering improvement of service.**

Whenever the commission, after a hearing, finds that the service of any electrical utility is unreasonable, unsafe, inadequate, insufficient, or unreasonably discriminatory, the commission must determine the reasonable, safe, adequate, and sufficient service to be observed, furnished, enforced, or employed and must fix the service by its order, rule, or regulation.

# Overhead Service

- 12,862 miles of overhead distribution line = 69% of system
- Extremely flexible
- Able to work energized
- Fast repair time
- Salt contamination
- Susceptible to wind events

# Underground Service

- 5,713 miles of underground distribution line = 31% of system
- Must work de-energized due to inflexibility
- Must be redundant in design
- Susceptible to water events
- Extended repair times
- Requires above ground equipment locations
- Aesthetics

# Overhead to Underground Conversions

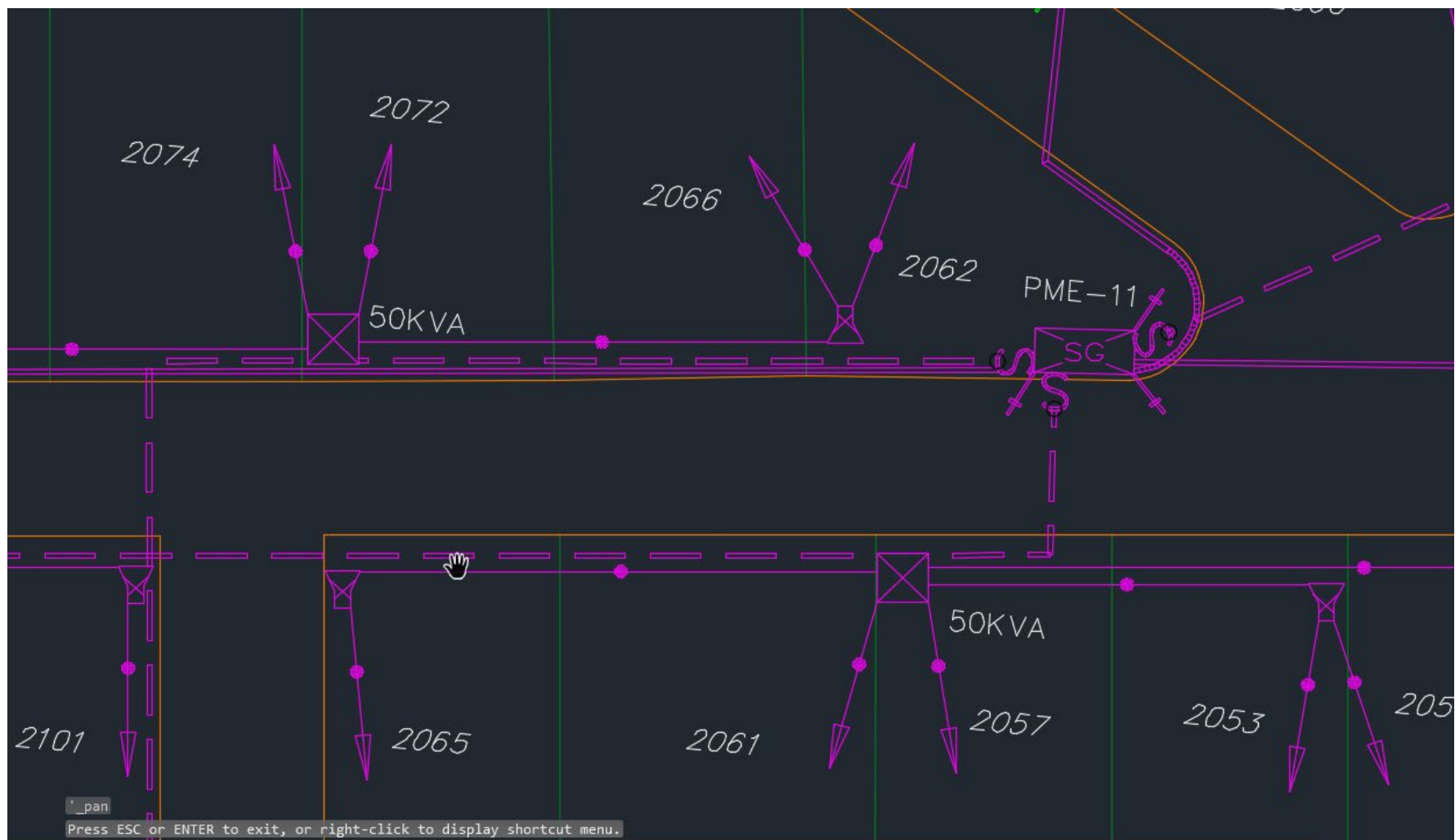
- Equipment locations
- Rights-of-way
- Redundant design
- Customer services
- Customer voltage changes
- Customer equipment upgrades
- Street lighting
- Telecommunication company attachments
- Cost (5X to 10X)

## Nonstandard Service Fund

- Part of municipal franchise agreement since 1996
- Typically 50/50 cost share agreement for capital expenditures
- Five-year cap on fund
- Municipal contributions of 50 basis points of franchise fee; municipality provides prioritization
- Municipalities or private partners can fund projects out of queue
- Approximately \$60 million invested since 1996



# Typical Underground Scenario





# Underground Facilities



# Thank you